AMENDMENTS

In the Claims:

Please amend the claims as indicated hereafter.

1. (Currently Amended) A communication system, comprising:

~~at least one~~ a central office transceiver;

~~at least one~~ an intermediate terminal transceiver;

a feeder distribution interface coupled to the transceivers;

~~at least two~~ a first customer ~~transceivers~~ transceiver coupled through the feeder distribution interface to the ~~at least one~~ central office ~~transceiver~~ transceiver;

a second customer transceiver coupled through the feeder distribution interface [[and]] to the ~~at least one~~ intermediate terminal transceiver;

memory for storing data based on an estimated distance between the ~~at least one~~ central office transceiver and the feeder distribution interface and an estimated distance between the ~~at least one~~ intermediate terminal transceiver and the feeder distribution interface; and

logic configured to estimate a distance of a data path between the intermediate terminal transceiver and one of the customer transceivers, the logic further configured to ~~adjust~~ control, based on each of the estimated ~~distance and the data~~ distances, a power output of the ~~at least one~~ intermediate terminal transceiver thereby ensuring that signals transmitted by the ~~at least one~~ intermediate terminal transceiver are spectrally compatible with signals transmitted by the ~~at least one~~ central office transceiver.

2. (Original) The system of claim 1, wherein the logic resides within the intermediate terminal transceiver.

3. (Currently Amended) The system of claim 1, wherein the logic is configured to adjust the power output equally across a range of frequencies ~~is reduced equally~~.

4. (Currently Amended) The system of claim 1, wherein the logic is configured to adjust the power output of the ~~at least one~~ intermediate terminal differently for different frequencies.

5. (Currently Amended) The system of claim 1, further comprising a communication device configured to automatically provide the ~~at least one~~ intermediate terminal transceiver with at least a portion of the data, the portion indicative of the estimated distance between the ~~at least one~~ intermediate terminal transceiver and the feeder distribution interface.

6. (Currently Amended) The system of claim 5, wherein the communication device is further configured to automatically provide the ~~at least one~~ intermediate terminal transceiver with a portion of the data indicative of the estimated distance between the ~~at least one~~ central office transceiver and the feeder distribution interface.

7. (Currently Amended) A data communication system having a central office ~~transceivers~~ transceiver residing at a central office and an intermediate terminal ~~transceivers~~ transceiver residing at an intermediate terminal, the central office and intermediate terminal transceivers coupled through a feeder distribution interface to customer transceivers, comprising:

means for determining a distance ~~distances~~ between the intermediate terminal transceiver ~~transceivers~~ and the feeder distribution interface and a distance between the central office transceiver and the feeder distribution interface; and

power reduction means for automatically reducing a transmission power of ~~at least one of~~ the intermediate terminal ~~transceivers~~ transceiver, based on each of the determined distances, in order to ensure that signals transmitted by the ~~at least one~~ intermediate terminal transceiver are spectrally compatible with signals transmitted by the central office ~~transceivers~~ transceiver.

8. (Currently Amended) The system of claim 7, further comprising a means for automatically providing each of [[the]] a plurality of intermediate terminal transceivers residing at the intermediate terminal with values indicative of an approximate distance between the central office and the feeder distribution interface and of an approximate distance between the intermediate terminal and the feeder distribution interface.

9. (Currently Amended) A system for communicating between transceivers, comprising:

a transmitter configured to transmit signals to a customer transceiver over a first communication connection that is bound within a binder; and

~~memory for storing data; and~~

logic configured to estimate a distance of a data path between the transmitter and the customer transceiver based on at least one signal communicated over the data path, the logic further configured to ~~adjust~~ control a transmission power level of the transmitter based on the estimated distance, a distance between the transmitter and a feeder distribution interface, and a distance between another transceiver and the feeder distribution interface ~~and the data~~ thereby ensuring that signals transmitted by the transmitter to the customer transceiver are spectrally compatible with signals transmitted from ~~another~~ the other transceiver over a second communication connection that is bound within the ~~binder, wherein the data is based on an estimated distance between the transmitter and a feeder distribution interface and a distance between the other transceiver and the feeder distribution interface~~ binder.

10. (Original) The system of claim 9, wherein the logic is configured to adjust the transmission power level equally for a range of frequencies.

11. (Original) The system of claim 9, wherein the logic is configured to adjust the transmission power level differently for different frequencies.

12. (Previously Presented) The system of claim 9, wherein the logic is configured to retrieve, from a look-up table and based on the estimated distance of the data path, a data value indicative of a transmission power level for the transmitter, the logic further configured to cause the transmitter to transmit at least one signal having the indicated power level based on the retrieved data value.

13. (Previously Presented) The system of claim 9, further comprising a receiver configured to receive at least one signal transmitted from the customer transceiver over the data path, wherein the logic is configured to estimate the distance of the data path based on the at least one received signal.

14. (Previously Presented) The system of claim 9, wherein the first and second communication connections are coupled to the feeder distribution interface, and wherein the logic and the transmitter reside within a transceiver installed at an intermediate terminal.

15. (Previously Presented) The system of claim 14, wherein the system further comprises a communication device that is configured to provide, to the logic, at least a portion of the data, the portion indicative of the estimated distance between the transmitter and the feeder distribution interface, and wherein the logic is further configured to determine a transmission power level for the transmitter based on the data and the estimated distance of the data path.

16. (Currently Amended) A communication method, comprising the steps of:

establishing a communication session between a first transceiver and a second transceiver;

communicating, during a training phase of the communication session, at least one signal between the first and second transceivers over a first communication connection that is bound via a binder, the communicating step comprising the step of transmitting at least one signal from the first transceiver at a default power level;

estimating a distance of a data path between the first and second transceivers based on at least one signal communicated in the communicating step;

~~adjusting~~ controlling a transmission power level for the first transceiver based on the estimated distance of the data path, an estimated distance between the first transceiver and a feeder distribution interface, and an estimated distance between the feeder distribution interface and another transceiver, such that signals transmitted by the first transceiver over the data path at the adjusted transmission power level are spectrally compatible with signals transmitted by the other transceiver over a second communication connection that is bound by the binder; and

transmitting at least one signal from the first transceiver ~~at the adjusted transmission power level~~ during a data phase of the communication session.

17. (Currently Amended) The method of claim 16, wherein the ~~adjusting~~ controlling step comprises the step of adjusting the transmission power level equally across a range of frequencies.

18. (Currently Amended) The method of claim 16, wherein the ~~adjusting~~ controlling step comprises the step of adjusting the transmission power level differently for different frequencies.

19. (Previously Presented) The method of claim 16, wherein the first and second communication connections are coupled to the feeder distribution interface, and wherein the method further comprises the steps of:

installing the first transceiver;

automatically providing, upon the installing step, the first transceiver with data indicative of the estimated distance between the first transceiver and the feeder distribution interface,

wherein the determining step is further based on the data.

20. (Currently Amended) A method for providing spectrum management in a data communication system having central office transceivers and intermediate terminal transceivers coupled through a feeder distribution interface to customer transceivers, the method comprising the steps of:

determining a first distance between one of the central office transceivers and the feeder distribution interface;

determining a second distance between one of the intermediate terminal transceivers and the feeder distribution interface;

automatically determining ~~at least one~~ a third distance between the ~~transceivers and the feeder distribution interface~~ one intermediate terminal transceiver and one of the customer transceivers; and

ensuring spectral compatibility between signals transmitted by the one intermediate terminal ~~transceivers~~ transceiver and signals transmitted by the one central office ~~transceivers~~ transceiver, the ensuring step comprising the step of automatically ~~adjusting~~ controlling, based on each of the determined distances, a transmission power of ~~at least~~ one ~~of the~~ intermediate terminal ~~transceivers~~ transceiver.

21. (Canceled)

22. (Currently Amended) The method of claim 20, further comprising the step of:

establishing a communication session between the one ~~of the~~ intermediate terminal ~~transceivers~~ transceiver and the one ~~of the~~ customer ~~transceivers~~ transceiver,

wherein the automatically determining step comprises the step of estimating, based on a signal communicated between the one intermediate terminal transceiver and the one customer transceiver during the communication session, an approximate distance between the one intermediate terminal transceiver and the one customer transceiver.

23. (Currently Amended) A method of ensuring spectral compatibility in a data communication system having a central office ~~transceivers~~ transceiver and an intermediate terminal ~~transceivers~~ transceiver coupled through a feeder distribution interface to a customer ~~transceivers~~ transceiver, the method comprising the steps of:

providing a table of power back-off values for adjusting transmission power levels of the intermediate terminal ~~transceivers~~ transceiver in order to ensure spectral compatibility between signals transmitted by the intermediate terminal ~~transceivers~~ transceiver and signals transmitted by the central office ~~transceivers, wherein the power back-off values are functions of distances between the transceivers and the feeder distribution interface~~ transceiver;

automatically determining a distance ~~distances~~ between the intermediate terminal ~~transceivers~~ transceiver and the customer ~~transceivers~~ transceiver based on signals communicated between the intermediate terminal ~~transceivers~~ transceiver and the customer ~~transceivers~~ transceiver;

selecting one of the power back-off values for the intermediate transceiver based on the

determined distance, a distance between the intermediate terminal and the feeder distribution interface, and a distance between the central office transceiver and the feeder distribution interface; and

~~adjusting~~ controlling, based on the ~~determined distances~~ selected power back-off value, the transmission power ~~levels~~ level of the ~~customer transceivers~~ intermediate transceiver ~~in accordance with the values in the table~~.

24. (Canceled)

25. (Currently Amended) A method for reducing crosstalk in a data communication system having a central office ~~transceivers~~ transceiver residing at a central office and an intermediate terminal ~~transceivers~~ transceiver residing at an intermediate terminal, the central office ~~transceivers~~ transceiver coupled through a feeder distribution interface to a first customer transceiver and the intermediate terminal ~~transceivers~~ transceiver coupled through a feeder distribution interface to a second customer ~~transceivers~~ transceiver, the method comprising the steps of:

storing a value ~~values~~ indicative of an approximate distance between the central office and the feeder distribution interface and a value indicative of an approximate distance between the intermediate terminal and the feeder distribution interface;

automatically determining a value ~~values~~ indicative of an approximate ~~distances~~ distance between the intermediate terminal ~~transceivers~~ transceiver and the second customer ~~transceivers~~ transceiver; [[and]]

~~reducing~~ selecting a transmission power ~~levels~~ level of ~~at all frequencies in~~ the intermediate terminal ~~transceivers~~ transceiver ~~in accordance with a power back-off algorithm,~~

~~wherein the power back-off algorithm is responsive to the stored and determined values~~ based on the each of the values; and

transmitting a signal from the intermediate terminal transceiver at the selected transmission power level.

26. (Currently Amended) The method of claim 25, further comprising the step of:

automatically providing ~~each of~~ the intermediate terminal ~~transceivers~~ transceiver, upon installation of the intermediate terminal ~~transceivers~~ transceiver at the intermediate terminal, the ~~values~~ value indicative of the approximate distance between the central office and the feeder distribution interface and the value indicative of the approximate distance between the intermediate terminal and the feeder distribution interface.

27. (Currently Amended) A communication method, comprising the steps of:

transmitting a signal from at least one intermediate terminal transceiver through a cable to a customer transceiver, the cable coupled to a feeder distribution interface that is coupled to the at least one intermediate terminal transceiver and at least one central office transceiver, the cable propagating at least one signal transmitted from the at least one central office transceiver;

ensuring spectral compatibility between signals transmitted by the at least one intermediate terminal transceiver and signals transmitted by the at least one central office transceiver, the ensuring step comprising the step of automatically ~~adjusting~~ controlling a power output of the at least one intermediate terminal transceiver; and

estimating a distance between the at least one intermediate terminal transceiver and the customer transceiver based on at least one signal transmitted between intermediate terminal transceiver and the customer transceiver, wherein the ~~adjusting~~ controlling step is ~~further~~ based on the estimated distance, a distance between the at least one intermediate terminal transceiver

and the feeder distribution interface, and a distance between the at least one central office transceiver and the feeder distribution interface.

28. (Currently Amended) A communication method, comprising the steps of:

transmitting a signal from at least one intermediate terminal transceiver through a cable to a customer transceiver, the cable coupled to a feeder distribution interface that is coupled to the at least one intermediate terminal transceiver and at least one central office transceiver, the cable propagating at least one signal transmitted from the at least one central office transceiver;

automatically ~~adjusting~~ controlling a power output of the at least one intermediate terminal transceiver such that a specified performance margin of the at least one central office transceiver is maintained;

estimating a distance between the at least one intermediate terminal transceiver and the customer transceiver, wherein the adjusting is further based on the estimated distance;

plotting a graph having axes corresponding to distances between the transceivers and the feeder distribution interface, the graph having at least one curve indicative of a level to which the power output of the at least one intermediate terminal transceiver is to be set via the ~~adjusting~~ controlling step; and

linearizing the at least one curve,

wherein the ~~adjusting~~ controlling step is based on the at least one linearized curve.

29-30. (Canceled)

31. (New) The system of claim 1, wherein the logic is configured to determine a difference between the estimated distance of the data path and the estimated distance between the intermediate terminal transceiver and the feeder distribution interface, and wherein the logic is configured to control the power output based on the difference.

32. (New) The method of claim 20, further comprising the step of determining a difference between the second distance and the third distance, wherein the controlling step is based on the difference.